

## ABSTRACT

A modulator according to the invention includes: a PLL circuit that detects a phase difference between an input signal and a reference signal, an AGC circuit  
5 that controls a gain of a modulating signal and outputs a control signal, and a voltage controlled oscillation circuit that controls an oscillation frequency of a signal outputted from the PLL circuit on the basis of the control signal. Here, the voltage controlled oscillation circuit includes: a first voltage controlled reactance unit that inputs the signal outputted from the PLL circuit, a second voltage  
10 controlled reactance unit that inputs the control signal, and a high-frequency oscillation circuit connected in parallel with the first and second voltage controlled reactance units, which outputs the input signal. Thereby, the invention achieves to provide a modulator capable of compensating the deviation of the modulation factor, even when the frequency of the carrier signal varies.